

Express Mail Label No. EL555972392US

WHAT IS CLAIMED IS:

1. A method for remote services control in an Asynchronous Transfer Mode (ATM)/Digital Subscriber Line (DSL) service network, the ATM/DSL service network including an ATM/DSL head-end system (NCS) and Customer Premise Equipment (CPE), the ATM/DSL head-end system including a network control system (NCS), the CPE including at least one computer, said method comprising the steps of:

sending an Internet Protocol (IP) encapsulated signal from the at least one computer, in response to an execution of a user command for the remote services control on the at least one computer, the IP encapsulated signal including an IP address of a Hypertext Transfer Protocol (HTTP) web server that is coupled to the NCS;

receiving the IP encapsulated signal for processing by the HTTP server; and communicating the user command to the NCS, by the HTTP web server.

2. The method according to claim 1, further comprising the step of providing a web based browser interface on the at least one computer to execute user commands with respect to the remote services control.

3. The method according to claim 1, wherein the IP address is local to the ATM/DSL head-end system.

4. The method according to claim 1, further comprising the step of providing an application program on the HTTP server for a user to log into using a predetermined password.

5. The method according to claim 1, wherein the CPE further includes at least one CPE unit having a DSL modem therein, and said method further comprises the steps of:

appending a unique modem serial number to the IP encapsulated signal, prior to said receiving step; and

providing an application program on the HTTP server for a user to log into based on the unique modem serial number.

Express Mail Label No. EL555972392US

6. The method according to claim 1, further comprising the step of modifying services configurations of the ATM/DSL service network by the NCS, based upon the user command communicated to the NCS by the HTTP web server.

5 7. The method according to claim 1, further comprising the step of broadcasting the IP address of the HTTP web server to the at least one computer, prior to said sending step.

10 8. The method according to claim 1, wherein the ATM/DSL service network further comprises a local domain name server, and said method further comprises the step of looking up the IP address on the local domain name server by the computer, prior to said sending step.

15 9. The method according to claim 1, wherein the remote services control comprise at least one of a viewing and an alteration of information pertaining to services of a particular user.

20 10. The method according to claim 9, wherein the information pertaining to the services of the particular user comprises at least one of call-id information, current service configuration information, and billing information.

25 11. The method according to claim 9, wherein the information pertaining to the services of the particular user comprises at least one of a number of phone lines provisioned for the user, call forwarding information, voice mail rings information, incoming call blocking numbers, and parental control features.

30 12. The method according to claim 11, wherein the parental control features comprise at least one of outgoing call blocking numbers and times during which at least one phone line pertaining to the user is active.

13. A method for remote services control in an Asynchronous Transfer Mode (ATM)/Digital Subscriber Line (DSL) service network, the ATM/DSL service network including an ATM/DSL head-end system (NCS) and Customer Premise Equipment

Express Mail Label No. EL555972392US

(CPE), the ATM/DSL head-end system including a network control system (NCS), the CPE including at least one computer and a DSL modem IP interface, the at least one computer having a web based browser interface thereon, said method comprising the steps of:

5 providing a Hypertext Transfer Protocol (HTTP) web server coupled to the NCS for communication there between; and

communicating with the NCS using the HTTP web server, the DSL modem IP interface, and the web based browser interface, by the at least one computer, with respect to the remote services control, said communicating step including the steps of formatting an IP encapsulated signal from the at least one computer into an ATM formatted signal and formatting the ATM formatted signal back into the IP encapsulated signal for processing by the HTTP web server.

14. The method according to claim 13, further comprising the steps of:
15 identifying the at least one computer using a unique modem serial number; and identifying the HTTP web server using a local IP address.

15. A method for remote services control in an Asynchronous Transfer Mode (ATM)/Digital Subscriber Line (DSL) service network, the ATM/DSL service network including an ATM/DSL head-end system (NCS) and Customer Premise Equipment (CPE), the ATM/DSL head-end system including a digital subscriber line access multiplexer (DSLAM), an ATM switch, an ATM terminator, an ATM router, and a network control system (NCS), the CPE including at least one computer having a web based browser interface thereon and at least one CPE unit, the at least one CPE unit having a DSL modem therein, said method comprising the steps of:

25 sending an Internet Protocol (IP) encapsulated signal from the at least one computer to the DSL modem, in response to an execution of a user command for the remote services control on the at least one computer through the web based browser interface;

30 appending a unique modem serial number to the IP encapsulated signal, formatting the IP encapsulated signal into an ATM formatted signal, and sending the ATM formatted signal to the DSLAM, by the DSL modem;

sending the ATM formatted signal to the ATM switch from the DSLAM;

Express Mail Label No. EL555972392US

5 sending the ATM formatted signal to the ATM terminator from the ATM switch;
formatting the ATM formatted signal back into the IP encapsulated signal, and
sending the IP encapsulated signal to the IP router, by the ATM terminator;
determining whether the IP encapsulated signal is local network traffic, by the IP
router;

sending the IP encapsulated signal to a Hypertext Transfer Protocol (HTTP) web
server for processing when the IP encapsulated signal is the local network traffic, by the
IP router; and

communicating the user command to the NCS, by the HTTP web server.